Work Ord October-31-12				*974	190*							Page 1	
Item ID: Revision ID: Item Name:	647.1812 Shim			Accept	*N900	040	100)*	-	Start Stop		S1* S2*	
Start Date: Required Date Reference:	10/31/12 e: 11/09/12	Start Qty: 14.00 Req'd Qty: 14.00	*14* *14*		Cust Item I Customer:	D:							
Approvals:		an: MLJ	Date: 12-10-01			ate:		J		Start Stop		R1* R2*	
Sequence ID/ Work Center	ID	Operation Description		Set Up/ Run Hours	Tool ID	Tool#	Plan Code	Accept Qty	Reje Qty		Reject Number	Insp. Stamp	
Draw Nbr	Re	vision Nbr											~
647.1800	N/0	C											
*110 *110*				0.00				14)		Imp.	- -//-/(
Waterjet FLOW CNC Wate	riet	Memo 1-Cut as pe	r Dwo	0.00				, .					
2024.0	=	Dwg Rev: Prog Rev:	97c										
		2-Deburr if	necessary										
120 *120*		QC2- Inspect parts off n	nachine FAI/FAIB	0.00				1//		λ		In 17	-11- 1
QC	•	Memo		0.00				19_				111/2	111 A

Memo

Quality Control

											DQA:	Date:	
NCR:	Yes	/ No				WORK ORDER NON-C	100	NFORM	MANCE / UP	DATE			
									-		QA Closed:	Date:	
Work Orde	er:					DISPOSITION				AGAINST DE	PARTMENT	/PROCESS	
Part N	- . No.					Rework Scrap Use-as-is Work Order Update		Therm	Skid-tube Machining noforming Large Fab	Crosstube Small Fab Finishing Composite	4	Water Jet d. Eng. Coor. re/Packaging Supplier	Engineering Quality Other
Root					Descrip	otion of work order update		Initial	Ac	tion	Sign &		
Cause		Date	Step	Qty	C	or Non-conformance	Ch	nief Eng	Desc	ription	Date	Verification	QC Inspector
Doc/Data Equip/Tooling Operator Material Setup Other Process Supplier Training Unapproved													
						F	AUL	T CATE	GORY				
Landii		iear Bending Centre No	ot Concer	ntric to	o/s	General Bend BOM/Route		Grain Hardwa	re		Ovalized Over/Under	tolerance	Pressure/Forced Temperature/Cure
		Cracks Crushed/0 Cuffs	Crimped.			Broken/Damaged Burrs		Instruct	on Incomplete ions Incomplete/	Unclear	Part Incorre	issing	Weld Wrong Stock Pulled
		Heat Trea		Tuho		Contamination Countersink Cut Too Short		Mainte Mislabe Misread	led	. -	Part Moved Positioned V	Wrong	Other
	-	Ripples in		Tube		Drill Holes	-	Offset	•		Trower ross	Juige	Other

Out of Calibration

Out of Sequence

Outside Dimensions

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Turning Sequence

Wave/Twist in Tube

Torque Waves in Extrusion

Drawing

Finish

Work Orde				*(92490)*							Page 2
Item ID: Revision ID: Item Name:	647.1812 Shim			Accept	*	1 900	040	100)* 5	Setup	Start Stop	I VI	S1* S2*
Start Date: Required Date: Reference:	10/31/12 11/09/12	Start Qty: 14.00 Req'd Qty: 14.00	*14* *14*			Cust Item I Customer:	D:						. 12
Approvals:	Process Pl	an:	Date:	Tooling:		D:	ate:		F	Run	Start	1/7	R1*
	QC:		Date:	SPC (Y/	N):	D:	ate:				Stop	*N	R2*
Sequence ID/ Work Center II	D	Operation Description		Set U Run l	p/ Hours	Tool ID	Tool #	Plan Code	Accept Qty	Rej Qty		Reject Number	Insp. Stamp
*130 *130* QC Quality Control		QC8- Inspect parts - secon	nd check	0.00	15, 11 D				14				
*140 *140* Outsource4 Outsource process -	- Anodize	Outsource process-Anodi Memo ISSUE P/O:_ HARD ANO	ze per QS1017 4.1.10.1 <u>LS 399</u> DIZE, COLOR BLACK A	0.00 0.00 S PER DWG	.(SEE NOTE 2)				Co	£	121	11/14	1_14
150 *150* Packaging		Receive & Inspect for Da	mage & Mat'l Certs	0.00					· ·	16	/ h	14/2	9 (14)

Memo

Packaging

NCR: Y	es / No				WORK ORDER NON-	COL	NFORM	ANCE / UP	DATE	•		
										QA Closed:	Date	
Work Orde	er:				DISPOSITION				AGAINST DI	PARTMENT	PROCESS	
Part N NCR N	lo.				Rework Scrap Use-as-is Work Order Update		Therm	Skid-tube Machining noforming Large Fab	Crosstube Small Fab Finishing Composite	4	Water Jet d. Eng. Coor. e/Packaging Supplier	Engineering Quality Other
Root				Descri	ption of work order update	\Box	nitial	Ac	tion	Sign &		
Cause	Date	Step	Qty		or Non-conformance	Ch	ief Eng	Desc	ription	Date	Verification	QC Inspector
Doc/Data												
Equip/Tooling												
Operator												
Material				:			٠,					
Setup						1						
Other							•					
Process												
Supplier												
Training		1										
Unapproved						<u> </u>						
					F	AUL	T CATE	GORY				
Landin	ng Gear				General					_		
	Bending				Bend		Grain			Ovalized		Pressure/Forced
	Centre N	ot Conce	ntric to	o/s	BOM/Route		Hardwa	re		Over/Under	tolerance	Temperature/Cure
	Cracks				Broken/Damaged		Inspecti	on Incomplete		Part Incorred	it	Weld
	Crushed/	Crimped.			Burrs		Instruct	ions Incomplete/	Unclear	Part Lost/Mi	ssing	Wrong Stock Pulled
	Cuffs				Contamination		Mainte			Part Moved		
1	Heat Trea				Countersink		Mislabe	led		Positioned V	Vrong	_
	Inspectio		Tube		Cut Too Short		Misread	1		Power Loss/	Surge	Other
	Ripples in	n Bend			Drill Holes		Offset					
	Torque V	Vaves in F	extrusion	n 1	Drawing		Out of C	alibration				

Out of Sequence

Outside Dimensions

DQA:

Date:

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Turning Sequence

Wave/Twist in Tube

Finish

Work Orde				*924	190*						Page 3
Revision ID: Item Name:	647.1812 Shim 10/31/12 11/09/12	Start Qty: 14.00 Req'd Qty: 14.00	*14		*N900		100)* s	Setup Sta	iA	S1* S2*
Reference:	11/09/12	Req u Qiy. 14.00	*14	^	Customer:			_			
Approvals:	Process Pl	an:	Date:			ate:		F	Run Sta Sto	17	R1* R2*
Sequence ID/ Work Center II 160 *160* QC Quality Control	D	Operation Description QC5- Inspect part comple	teness to step on W/O	Set Up/ Run Hours 0.00 AS 15	Tool ID	Tool#	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
170 *170* SprayPaint Spray Painting			MIL-P-23377J TYPE 4860-50 PRIMER B <i>A</i>	0.00 0.00 1 CLASS N AS PER DWG. TCH: \23693	(SEE NOTE 2)			14		Ø	AB 12-12-15
180 *180* QC		QC14- Inspect Spray Pair Memo	n t	0.00				14			(OAS) 12-12-18

Quality Control

NCR:	Yes	/ No				WORK ORDER NON-	COI	NFORM	AANCE / UPDATE		•		•	
											QA Closed:	Dat	e: •	•
Work Orde	er:					DISPOSITION			AGAINS	T DE	PARTMENT	PROCESS		
Part N	۰ No.				·	Rework Scrap Use-as-is Work Order Update		Therm	Skid-tube Crosstub Machining Small Fa noforming Finishir Large Fab Composit	b g	-∤	Water Jet d. Eng. Coor. e/Packaging Supplier	Engineering Quality Other	
Root					Descri	ption of work order update		Initial	Action		Sign &			
Cause		Date	Step	Qty	(or Non-conformance	Ch	nief Eng	Description		Date	Verification	n QC Inspecto	r
Doc/Data Equip/Tooling Operator Material Setup Other Process Supplier Training Unapproved							EA111	T CATE	SOBA					
Landi	ne G	iear				General	AUI	LICAIL	JOKI		,			
		Bending Centre No Cracks Crushed/ Cuffs Heat Trea Inspectio Ripples in	Crimped at n Strip in i Bend	Tube		Bend BOM/Route Broken/Damaged Burrs Contamination Countersink Cut Too Short Drill Holes		Instruct Mainte Mislabe Misread Offset	on Incomplete ions Incomplete/Unclear nance led		Ovalized Over/Under Part Incorred Part Lost/Mi Part Moved Positioned V Power Loss/	ct ssing Vrong	Pressure/Forced Temperature/Cur Weld Wrong Stock Pull Other	
	1	Torque W	raves in E	extrusion	1	Drawing	1	JOut of (Calibration					

Out of Sequence

Outside Dimensions

DQA:

Date:

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Turning Sequence

Wave/Twist in Tube

Finish

			924	190						Page 4
647.1812	2		Accept	*N900	040	100	*		1.71	S1*
Shim								Stop	*N	S2*
10/31/12	Start Qty: 14.00	*14*		Cust Item I	D:					
11/09/12	Req'd Qty: 14.00	*14*		Customer:						
Process	s Plan:	Date:	Tooling:	Da	ate:]		1/1	R1*
QC:		Date:	SPC (Y/N):	Da	ate:			Stop	*N	R2*
D	Operation Description Identify as per dwg & Sto	ck Location:_/39C	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
	Мето	751	0.00					[43 _]	/4/9	(14)
	IDENTIF	Y AS PER APICAL MPP-	120 BY STAMPING P#	# AND REV				,	,	
	QC21- Final Inspection -	Work Order Release	0.00					101	1, 0	40
	Memo		0.00					12/1	1 <u>110 </u>	
	647.1812 Shim 10/31/12 11/09/12 Process QC:	10/31/12 Start Qty: 14.00 11/09/12 Req'd Qty: 14.00 Process Plan: QC: Operation Description Identify as per dwg & Sto Memo ***IDENTIF	Shim 10/31/12 Start Qty: 14.00 *14* 11/09/12 Req'd Qty: 14.00 *14* Process Plan: Date: D	Accept Shim 10/31/12 Start Qty: 14.00 *14* 11/09/12 Req'd Qty: 14.00 *14*	Accept	Accept	Accept	Accept	Accept	Accept

MF 13-01-09

NCR:	Yes	/ No				WORK ORDER NON-	COI	NFORM	ANCE / UP	DATE			
				•		·					QA Closed:	Date:	•
Work Ord	er:					DISPOSITION				AGAINST D	EPARTMENT	/PROCESS	
Part NCR	•					Rework Scrap Use-as-is Work Order Update		Therm	Skid-tube Machining noforming Large Fab	Crosstube Small Fab Finishing Composite	_	Water Jet d. Eng. Coor. re/Packaging Supplier	Engineering Quality Other
Root						ption of work order update		Initial	Act	tion	Sign &		
Cause		Date	Step	Qty	(or Non-conformance	Cł	nief Eng	Desc	ription	Date	Verification	QC Inspector
Doc/Data	Ш					•							
Equip/Tooling	Ш												
Operator	Щ		1										
Material	Ш												
Setup													
Other	Ц						ļ]	
Process	Ш												
Supplier													
Training	Ш						1						
Unapproved							<u> </u>						<u> </u>
							AUI	LT CATE	GORY				
Landi						General	_	٦		_	_	_	1
		Bending				Bend	—	Grain		_	Ovalized	_	Pressure/Forced
	-	Centre No	ot Concer	ntric to (^{O/S}	BOM/Route	<u>_</u>	Hardwa			Over/Under	⊢	Temperature/Cure
·	-	Cracks			<u> </u>	Broken/Damaged	_	4	on Incomplete	_	Part Incorre	├	Weld
		Crushed/	Crimped.		<u> </u>	Burrs	\vdash	-{	ions Incomplete/	Unclear	Part Lost/M	_ <u> </u>	Wrong Stock Pulled
	\vdash	Cuffs			_	Contamination		Mainte		_	Part Moved		
	\vdash	Heat Trea			_	Countersink		Mislabe		· L	Positioned		٦
	\vdash	Inspectio	•	Tube	<u> </u>	Cut Too Short	\vdash	Misread		L	Power Loss,	/Surge	Other
	\vdash	Ripples in				Drill Holes	_	Offset					
	ll	Torque W	/aves in E	xtrusio	า	Drawing		Out of C	Calibration				

Out of Sequence

Outside Dimensions

DQA:

Date:

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Turning Sequence

Wave/Twist in Tube

Finish

Picklist Print

October-31-12 4:05:57 PM

Work Order ID: 92490

647.1812

Parent Item Name: Shim

92490

647 1812

Start Date: 31/10/2012

Required Date: 09/11/2012

Start Qty: 14.00

Required Qty: 14.00

Comments:

Parent Item:

IPP REV:A 12.10.03 NEW ISSUE DD VERF:JFS

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status	
M2024T3S.063		Purchased	No			110	sf	31.1700	0.017	<u>0.25052</u> 6				
N/202/T3	S 063			•					**	0,3			The	

2024-T3 .063 sheet

Location	Loc Oty	Loc Code	
MAT022	31.17		
119916	0.1		
121197	16.32		
123096	14.75		123096

DART AEROSPACE LTD	Work Order:	92490
Description: Shim	Part Number:	647.1812
Inspection Dwg: 647, 1800 Rev: 20/c		Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

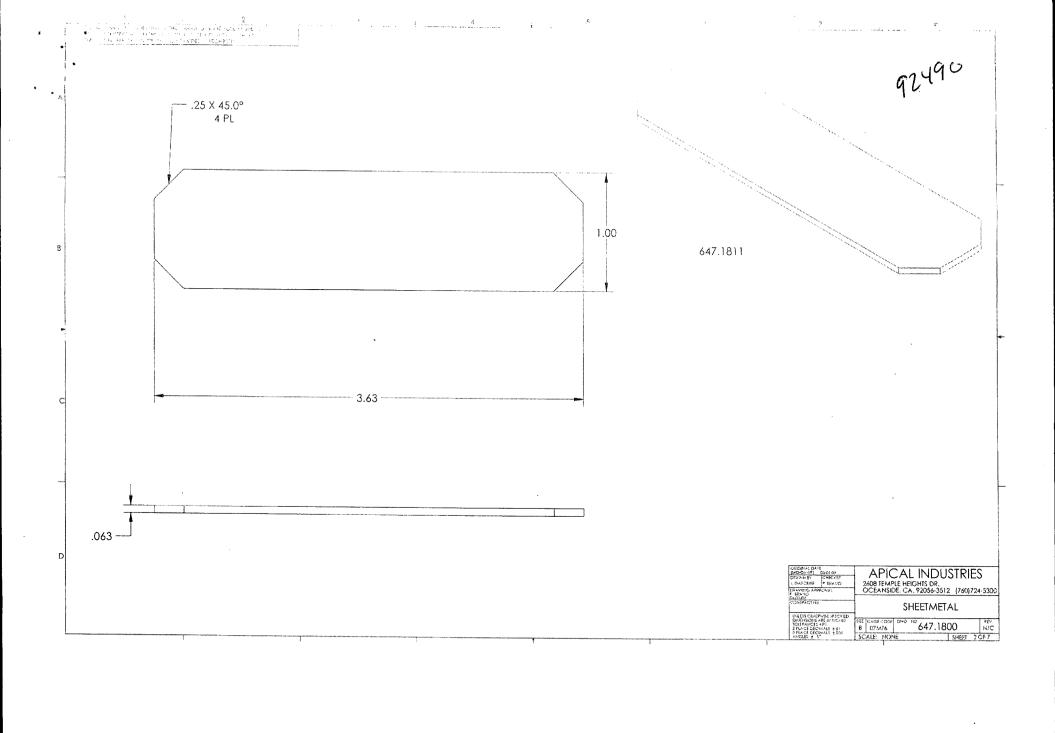
Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
Ø 0,20"	# 0.005 001"	0,204"			U	
0.11 × 45°	11-0.000"	0.11 × 450	· •	41	N Port	Postero
0.603	tl-0005"	0,599"			·U	
2.250"	11-0.002	2.248"	V		V	•
3.46"	41-0.010"	3.452"	~		V	·
0.350	11-0.005	0.347	V		V	
0,70"	11-0-010m	0,699"	ν.		ν	
0,063"	11-0.010	0.062"			V	
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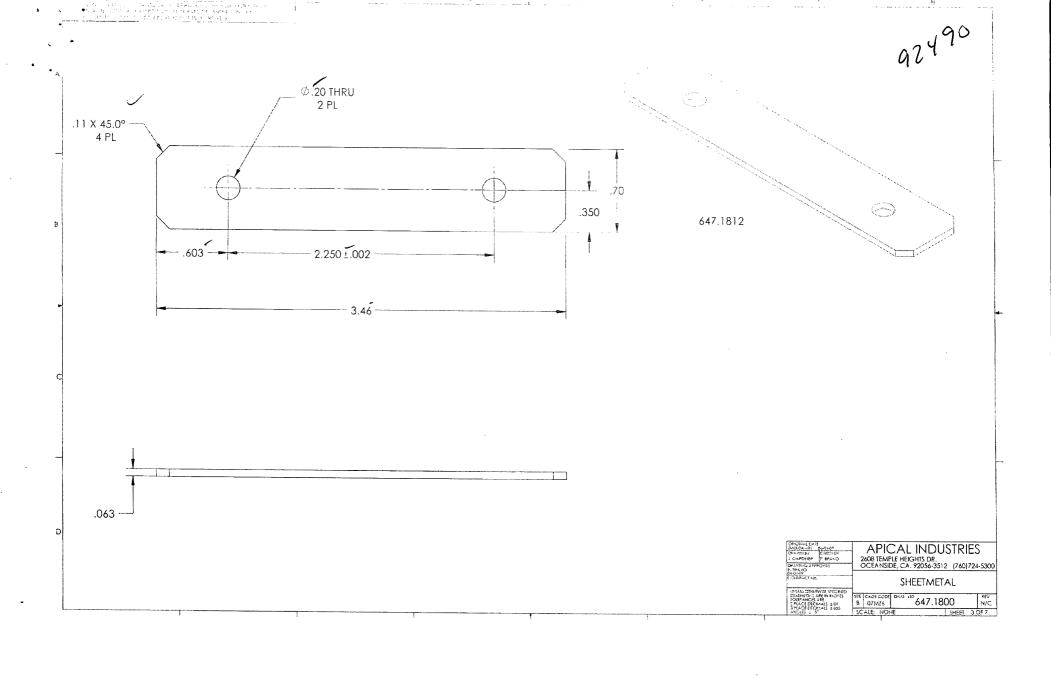
			DAG.		
Measured by:	Im	Audited by:	25	Preliminary Approval:	
Date:	12-11-10	Date:	2 11 12	Date:	

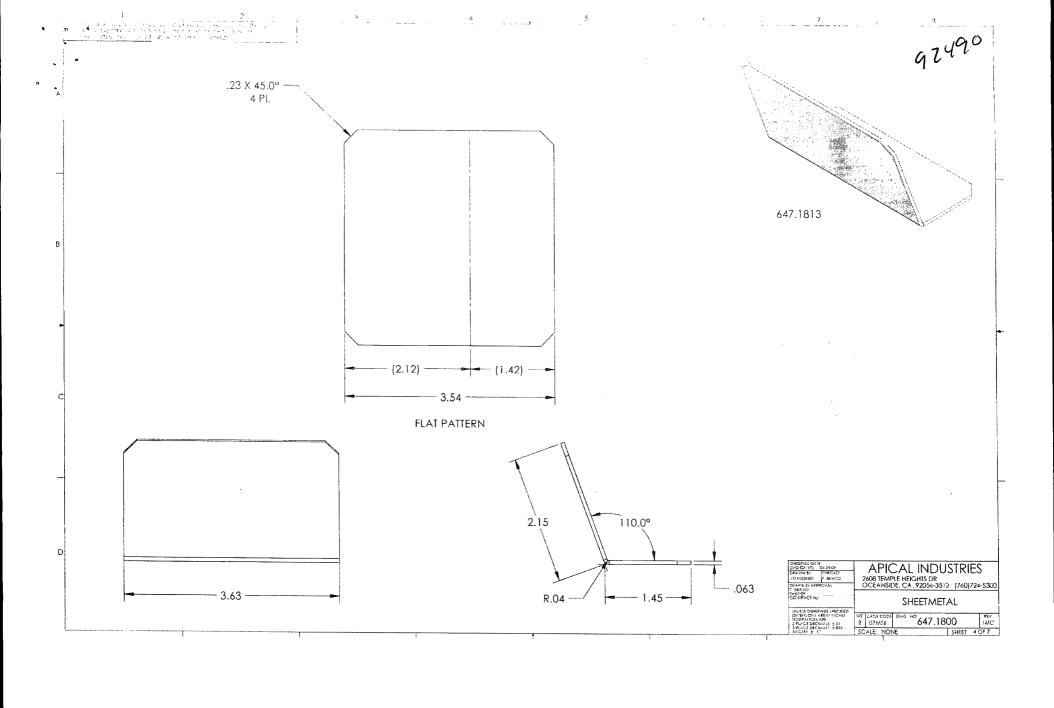
Rev	Date	Change		Revised by	Approved
E	10.04.14	Added preliminary approval	4 4	KJ	

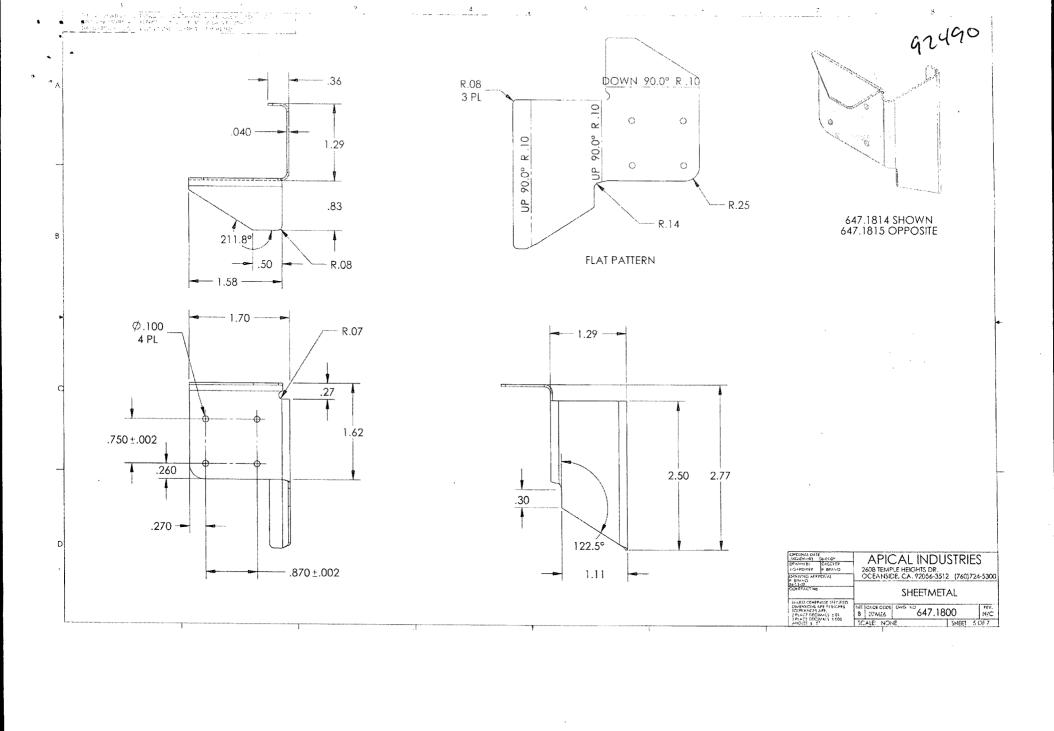
NOTES: A MATERIAL: ALUMINUM 2024-T3 PER AMS-QQ A-250/4 SHOP COPY FINISH: HARD ANODIZE IAW MIL-A-8625 TYPE III, CLASS 2, COLOR BLACK:
CARDINAL 4860-50 PRETREATMENT PRIMER PRIME IAW MIL-P-23377 J TYPE I CLASS N RETURN TO ENGINEERING UNCONTROLLED COPY 3. DEBURR AND BREAK ALL SHARP EDGES SUBJECT TO AMENUMENT 4. IDENTIFY IAW MPP-120 WITHOUT NOTICE WORK ORDER MLJ NO. 92490 MLJ Ø.102 2 PL -647.1810 2.00 .700 - 4.200 ±.002 11.00 647.1818 NOSE DOOR SPACER 647.1817 SUPPORT, RH .063 647,1816 SUPPORT, LH 647 1815 GUSSET, RH 647,1814 GUSSET, LH 647.1813 ANGLE 647.1812 SHIM 647.1811 SPACER 647.1810 NOSE DOOR DOUBLER Δ FIND # PART # DESCRIPTION MATL PARTS LIST APICAL INDUSTRIES NEXT ASSY (S) 2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760)724-5300 647.1300 SHEETMETAL B 07M26 647.1800 N/C SHEET | OF 7

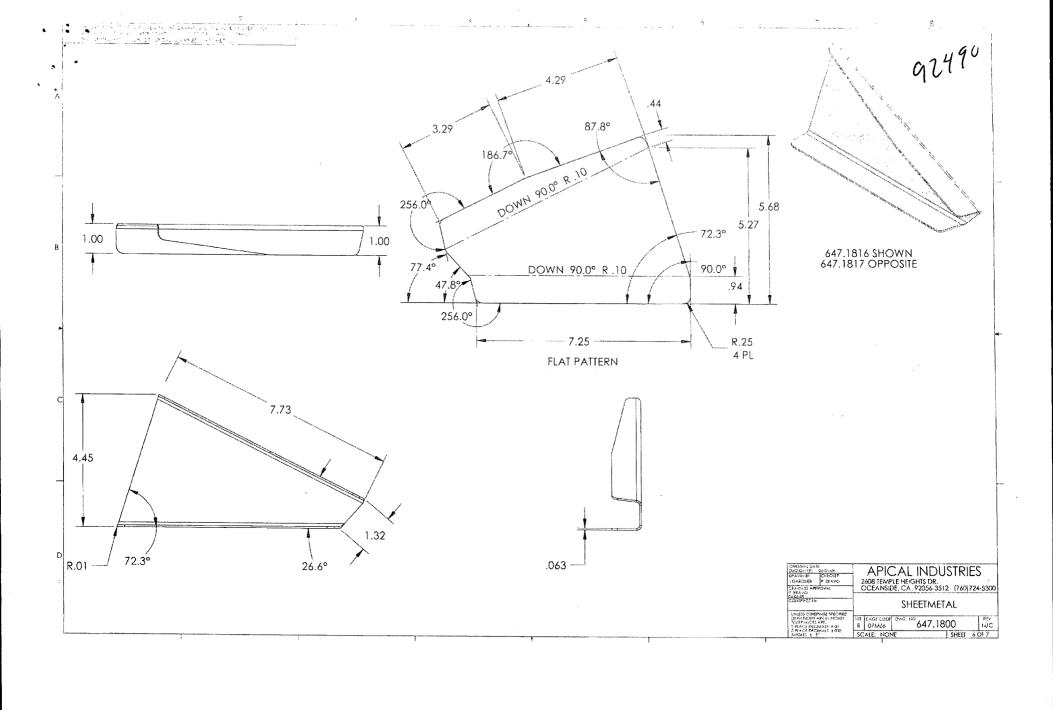
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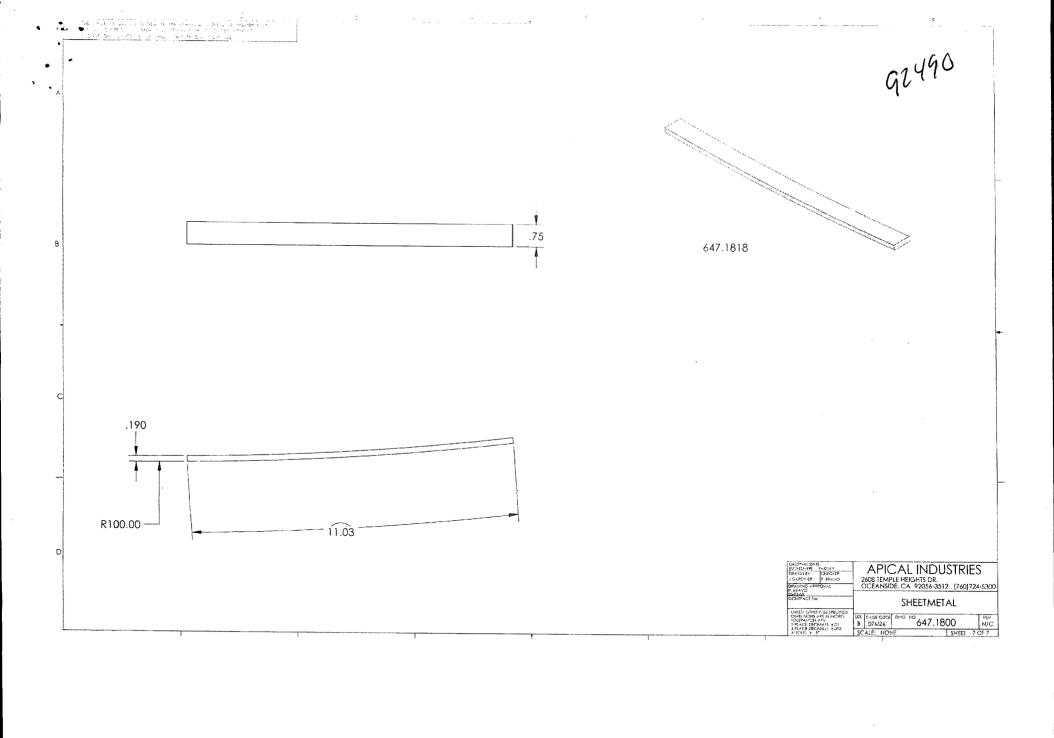














A.T.G. industries Inc. 731, rue Industrielle Rd. PLATING DEPARTMENT Rockland, On K4K 1T2 Canada

Ph: (613) 446-4544 Fax: (613) 446-4556

Pack List

Number: 62076

Date: 27-Nov-12

То

DART AEROSPACE LTD 1270 ABERDEEN ST. HAWKESBURY, ON K6A 1K7 Canada

Ship To

DART AEROSPACE LTD 1270 ABERDEEN ST. HAWKESBURY, ON K6A 1K7

Canada

Ph: 613-632-5200

Fax: 613-632-1185

rms		Ship Via		
Quantity	Description			
1 lot	Part: ASST		Rev:	
	MIL-A-8625 TYPE III CLASS 2 Job: 20120737 Certificate of C	ne in this shinment are in cor	Line:	
·.	with all requirements, specifications a ISO 9001 : 2008 R ATG SALES-2010 DATE : 17/11/12 CERTIFIED SIGNATURE :	EGISTERED TERMS APPLY	ne purchase order.	
	RECEIVER SIGNATURE:			